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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/767,037 | 01/28/2004 | Charles W. Finkl | FINKL162CIPD2 | 4800 |

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7590 09/29/2004

EXAMINER

KASTLER, SCOTT R

ART UNIT PAPER NUMBER

1742

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-----------------|--------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/767,037 | FINKL ET AL. | |
| | Examiner | Art Unit | |
| | Scott Kastler | 1742 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

Means-Plus Function Language

Instant claims 1 and 10 contain the following terms, couched in means-plus function format:

1. “means for confining the heat from the electric heat source to the body-shank junction portion of the die block” (claim 1, lines 9-10).
2. “means for subjecting said selected portion to electrical energy derived from said source of infrared heating” (claim 10, lines 4-5)
3. “means for maintaining” (claim 10 lines 6-7)
4. “means for controlling” (claim 10 lines 8-9)

However, none of the above “means” are sufficiently described in the originally filed specification to meet the requirements of a proper means plus function claim, and therefore, these terms have been interpreted to allow for any structure which would allow for the performance of the recited function.

Claim Objections

Claims 5, 6, 8 and 9 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The above claims do not fairly further limit the independent apparatus claim 1 from which they depend because the above claims contain only limitations dealing with the manner or method in which the claimed apparatus is to be

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employed (the specific placement of the apparatus near or abutting a shank body to be treated or the operating power to be employed). It has been well settled that the manner or method of use of an apparatus cannot be employed to fairly further limit claims to the apparatus itself. See *In re Casey*, 152 USPQ 235, and MPEP 2114 and 2115.

Claim 4 is also objected to because of the following informalities: the above claim recites the term "rock-type" without any further description of what materials other than actual rock materials are to be covered by the term "rock-type" thereby rendering the claim potentially indefinite.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4 and 7-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The above claims are indefinite for the following reasons:

1. With respect to claim 4, this claim includes a Markush group which is improperly open, in that the Markush group is listed employing the term "the group consisting essentially

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of" language, thereby improperly opening the group to other, unnamed components and rendering the scope of the claim unascertainable.

2. With respect to claims 7-9, instant claim 7 recites the term "the infrared heating means", however, there is no antecedent basis for any "infrared heating means" either in this claim or claim 1, from which this claim depends, thereby rendering the scope of the claim unascertainable to one of ordinary skill in the art at the time the invention was made.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 7-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishikawa. Nishikawa teaches that it was known in the art at the time the invention was made to employ electric heating from infrared heaters in the form of halogen lamps (including tungsten halogen lamps) to selectively harden portions of a workpiece while employing means for confining the heat from the lamps to the portion to be heated (see col. 4, line 50 to col. 7 line 5 for example) thereby showing all properly limiting aspects of the above claims since the use of the claimed apparatus to specifically heat treat any particular type of workpiece in any particular type of heat treating process cannot be relied upon to fairly further limit claims to the apparatus itself when, as in the instant case, the applied prior art apparatus could be employed if desired to perform the claimed function. See MPEP 2114 and 2115.

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Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by the ASM Handbook, vol. 4 "Induction Heat Treating of Steel" (ASM vol.4). ASM vol. 4 teaches shaped induction heating coils for the selective hardening of workpieces (see fig. 15 on page 174 for example) and including insulating non-magnetic "rock-type" materials for surrounding at least partially portions of the coils (see "Coil Insulation on pages 180-181 for example), thereby showing all aspects of the above claims since the use of the claimed apparatus to specifically heat treat any particular type of workpiece in any particular type of heat treating process cannot be relied upon to fairly further limit claims to the apparatus itself when, as in the instant case, the applied prior art apparatus could be employed if desired to perform the claimed function. See MPEP 2114 and 2115.

Conclusion

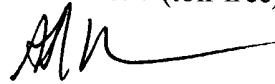
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Each of Placek, Lihl, Benedyk and Sikka et al are also cited as further examples of prior art induction and infrared heat treating devices for metal treatment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Kastler whose telephone number is (571) 272-1243. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Scott Kastler
Primary Examiner
Art Unit 1742

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